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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,061	11/14/2003	Xu Zuo	S104.12-0063/STL11496	3196

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EXAMINER

CAO, ALLEN T

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/714,061	<b>Applicant(s)</b> ZUO ET AL.	
	<b>Examiner</b> Allen T. Cao	<b>Art Unit</b> 2652	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-13 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 7-9, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/27/04</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2652

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract contains only 44 words which is less than 50 words.

2. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "portion" in claims 1, 10 and 16 is vague and indefinite because 1) it lacks antecedent basis; and 2) it is unclear as to what is "portion".

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-2, 5-6, 10, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oveyssi et al (US. 6,879,466 B1) in view of Ahmad et al (US. 6,175,469 B1).

Oveyssi et al discloses an actuator assembly having an actuator block (30, figure 2) including a body portion 32 and at least one actuator arm 34 extending from the body portion of the actuator block and the body portion including a damping assembly 62 coupled to the body portion as set forth in claims 1 and 10. Oveyssi et al also discloses a servo writing apparatus having a spindle assembly (figure 1) as recited in claim 10. Oveyssi also inherently discloses method steps as claimed including the step of securing the circuit board as recited in claim 16.

Oveyssi et al discloses there are relationship between the actuator block, the circuit board 30 and the damper 62 (see figure 1); however, Oveyssi et al does not clearly discloses that the damping assembly 62 interfaced between the actuator block and the circuit board 30.

Ahmad et al discloses a disk drive having a damper (150 or 154) interfaced between the voice coil motor 134 and the enclosure 104 of the disk drive.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the location of the damper of Oveyssi et al such that the damper is interfaced between the circuit board and the actuator block as set forth, supra as taught by Ahmad et al.

The rational is as follows: One of ordinary skill in the art would have been motivated to rearrange the location of the damper of Oveyssi et al such that the damper

is interfaced between the circuit board and the actuator block as set forth, supra as taught by Ahmad et al to reduce the vibration between parts within the housing (this case between the circuit board and the actuator block, particularly) in order to reduce the vibration of the actuator assembly, thus improve read/write characteristics.

Additionally, it would have been obvious to one of ordinary skill in the to rearrange the damper of Oveyssi et al to such location through an obvious rearrange of parts within housing by an engineering rearranging desire choices.

Regarding claim 2, Oveyssi et al discloses that the damping assembly includes at least one rigid body 70 coupled to the body portion of the actuator block.

Regarding claims 5 and 13, Oveyssi et al discloses that the damping assembly includes at least one damper pad 72.

Regarding claim 6, Oveyssi et al discloses that the damper pad 72 is viscoelastic.

5. Claims 3-4, 11-12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oveyssi et al and Ahmad et al as applied to claims 1, 10 or 16 above, and further in view of Weichelt et al (US. 2003/0169537 A1), respectively.

Oveyssi et al discloses that the damping assembly has only one rigid body. Oveyssi as modified by Ahmad et al do not disclose a second rigid body as set forth in claims 3, 11 and 17.

Weichelt et al discloses an actuator assembly having a damping assembly 300 including a damping layer (402 or 404) interposed between a first rigid body 408 and a second rigid body 408 (figure 4) as recited in claims 3, 11 and 17.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the damping assembly of Oveyssi et al as modified by Ahmad et al with an extra rigid body as set forth, supra as taught by Weichelt et al to improve the damping characteristics of the damping assembly, thus reduces vibration in the actuator assembly during operation of the disc drive.

Regarding claims 4 and 12, Weichelt et al discloses an adhesive 402 interposed between the plurality of rigid damper plates 302's.

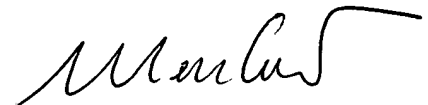
Regarding claim 18, Oveyssi et al discloses a damper pad 72 and abut to the interface surface of the actuator block.

6. Claims 7-9 and 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen T. Cao whose telephone number is (571) 272-7569. The examiner can normally be reached on Mon - Thurs (7:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Cao  
Primary Examiner

AC  
August 22, 2005